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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,978

08/28/2006

Markus Schubert

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EXAMINER

FIORITO, JAMES

ART UNIT

PAPER NUMBER

1793

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/590,978	<b>Applicant(s)</b> SCHUBERT ET AL.	
	<b>Examiner</b> JAMES A. FIORITO	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/06, 8/06</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is indefinite as to whether a member of the markush group is required by the claim.

Claim 12 is indefinite as to which component is added from 1 to 10% by weight.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-10, and 13-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Commereuc US 5898092.**

Commereuc teaches a catalyst used for the metathesis of olefins. The catalyst is supported on silica-aluminas (Column 2 Lines 14-20), wherein the support is 75% alumina (Claim 11). A compound of rhenium can be introduced on the support for example by sublimation in the vapor phase or by impregnation in solution. It is preferred generally to use the dry impregnation method in which the rhenium compound is dissolved in water or in an organic solvent, for example a hydrocarbon, an alcohol or an ether. The amount of rhenium on the support is regulated by the choice of the level of concentration of the impregnation solution, its amount being such that the volume of that solution is equal to or slightly less than the porous volume of the solid to be impregnated. When the amount of rhenium which is to be impregnated is greater than that which a solution makes it possible to introduce, at its saturation limit, the operation has to be effected a number of times, with intermediate drying operations, to remove the impregnation solvent, at a temperature of for example from 90 to 250 degrees C, preferably from 100 to 180 degrees C. That makes it possible to introduce from 0.01 to 20%, preferably from 0.1 to 15% and still more advantageously from 0.5 to 8% by weight of rhenium (Column 2).

Commereuc does not expressly state the maximum of the distribution function. However, where the claimed and prior art product(s) are identical or substantially

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identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s) do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see *In re Best*, 195 USPQ 430.

**Claims 1-4, 8-10 and 13-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Schwab US 6130181.**

Schwab teaches a novel catalyst that contains  $\text{Re}_2\text{O}_7$  as active component applied to a support in highly disperse form. Examples of suitable supports are activated carbons, silicon carbide, aluminum oxides, silicon dioxide, titanium dioxide, zirconium dioxide, zinc oxide, magnesium oxide or mixtures thereof, preferably aluminum oxides, very particularly preferably gamma  $\text{Al}_2\text{O}_3$ . The supports can be, for example, in the form of tablets, extrudates or granules having diameters of, for example, from 3 mm to 5 mm. The  $\text{Re}_2\text{O}_7$  content in the novel catalysts is from 1 to 50% by weight, preferably from 5 to 20% by weight, particularly preferably from 9 to 11% by weight (Column 2).

Schwab does not expressly state the maximum of the distribution function. However, where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s) do not necessarily or

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inherently possess the characteristics of the instantly claimed product(s), see *In re Best*, 195 USPQ 430.

**Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwab US 6130181 or Commereuc US 5898092 in view of Meyer US 5055019.**

Schwab and Commereuc do not expressly state the process in which the alumina is formed.

Meyer teaches a process for the preparation of boehmitic alumina compounds having a purity of, at least, 99.95%  $\text{Al}_2\text{O}_3$ . The compounds produced according to the invention have a pore radii in the range of 3 to 100 nm. The preparation of such compounds is carried out by, first, obtaining an alumina suspension from a neutral aluminum alkoxide hydrolysis and, then, aging the alumina suspension in an autoclave, preferably, at a steam pressure of 1 to 30 bar, corresponding to a temperature of 100 degrees C to 235 degrees C, for between 0.5 and 20 hours. The aging step of the invention is preferably carried out with stirring at a peripheral speed of 1 to 6 m/s.

At the time of invention it would have been obvious to a person of ordinary skill in the art to perform the process of Schwab or Commereuc to include the alumina preparation process of Meyer. The suggestion or motivation for doing so would have been to provide a means of forming alumina required by Schwab and Commereuc, but not disclosed.

**Claims 5-6, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwab US 613018 in view of Garg US 6391072.**

Schwab does not expressly teach the adding of a pore forming material and removing it by heating.

Garg teaches that microvoids can be formed in alumina by the addition an aqueous polymer to an alumina sol precursor material. The microvoids will be uniformly dispersed when the material is fired (Column 2).

At the time of invention it would have been obvious to a person of ordinary skill in the art to form the process of Schwab to include adding the aqueous polymer and heating the resultant materials in view of the teaching of Garg. The suggestion or motivation for doing so would have been to create microvoids in the alumina (Column 2).

**Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwab US 6130181 or Commereuc US 5898092 in view of Meyer US 4542113.**

Schwab and Commereuc do not expressly teach the method of making alumina according to instant claim 12.

Meyer teaches a process of making alumina according to instant claim 12 (Abstract).

At the time of invention it would have been obvious to a person of ordinary skill in the art to the form the process of Schwab or Commereuc to include the method of making alumina disclosed by Meyer. The suggestion or motivation for doing so would

have been to provide a means of forming alumina required by Schwab and Commereuc, but not disclosed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES A. FIORITO whose telephone number is (571)272-7426. The examiner can normally be reached on 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A Fiorito/  
Examiner, Art Unit 1793

/Wayne Langel/  
Primary Examiner, Art Unit 1793



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